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IDENTIFIERS Rotter Internal External Locus of Control Scale

ABSTRACT

Since attrition is often a problem in adult training programs, a study was conducted to investigate the relationship between locus of control and course completion of adults enrolled in a retraining program. Rotter's Social Learning Theory of Personality was used as a starting point for the study. The study population was a sample of 108 English-speaking adults who began the Basic Training for Skill Development (BTSD) program at a community college in Eastern Ontario in the fall of 1983 and spring of 1984. Approximately one-half of the participants were federally sponsored and one-half paid their own fees. Data were collected using a modification of the Internal, Powerful Others and Chance (IPC) scales, the Gates-MacGinitie Reading Test, the Morrison-McCall Spelling Scale, and a geographical profile constructed for the study. Sixty-five percent of the population remained in the program for at least 13 weeks, whereas 79 percent of the noncompleters dropped out during this period. The major reason for dropping out was unexcused absence from class (47 percent), followed by medical reasons (18 percent). A one-way analysis of variance was used to test the hypothesis that there is a significant difference between completers and dropouts on the internal dimension of locus of control, with completers scoring higher on this dimension. No support was found for the hypothesis, and it was theorized that the IPC scales may not measure the locus of control construct effectively. (18 references) (KC)

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Locus of Control and Completion in an Adult Retraining Program

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INTRODUCTION

A major challenge facing Canadian society in the coming decades is that of retraining the work force. According to the Skill Development Leave Task Force Report (1983) some analyses have suggested that as much as 40% of Canada's work force will need retraining or upgrading over the next few years.

It is necessary to work quickly to expand opportunities and to remove barriers to the participation of adults in education, training, retraining and upgrading (Canada Employment and Immigration Commission, 1984).

One of the barriers to participation in retraining and upgrading programs is the adult learner attrition rate. According to the report by Strath Lane Associates (1983) on Adult Basic Education in the Atlantic Provinces, one of the major barriers to access and program delivery in the region was the lack of follow-up on why people drop out of programs. The U.S. Department of Health, Education and Welfare, Office of Education, Adult Education Annual Performance Report (1977) indicated that in certain states, dropouts average 40% to 50% of the total adult population and in some cases as much as 75%.

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Discontinued attendance among adult learners is still a major problem for teachers and administrators of retraining and upgrading programs. Although a proportion of adult basic education learners discontinue prematurely because they feel that they have achieved their specific goals (Brooke, 1973; Houle, 1964; Wright & Alam, 1968), the remainder who do not complete their programs experience personal frustration, disappointment and loss of pride. This is especially true for the ABE learner, who has likely already experienced failure in previous educational, occupational and social activities (Cass, 1971). As Brooke (1973) points out, because an ABE program is frequently the last opportunity for a person to upgrade him/herself, it is crucial to the learner's well-being that he/she succeed. Completion is part of succeeding.

The central focus of the study was to investigate the relationship between locus of control of reinforcement and course completion of adult learners enrolled in an adult retraining program. An analysis of Rotter's Social Learning Theory of personality (SLT) and the research findings related to the locus of control construct may offer some explanation in this problem of program completion.

Rotter (1966) states that people vary in the degree to which they recognize a contingent relationship between their own behaviors (actions) and the resulting reinforcements (outcomes). Certain people with an external locus of control generally believe that reinforcements are controlled by forces external to themselves such as powerful others, fate, chance and luck. Others, with an internal locus of control, tend to believe that their own behaviors are the primary factors in receipt of

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reinforcements; that is, control rests within the power of the individual. Rotter (1966) further states that belief in locus of control is attributable by an individual to the history of reinforcement patterns.

Newsom and Foxworth (1980) examined the relationship between locus of control and class completion among ABE clients in an adult day school using the Rotter Internal-External (I-E) Scale. They found no significant relationship between locus of control and completion. However, Taylor and Boss (1982) found different results in a study conducted in a community college ABE literacy program. Adult learners who completed a six-month literacy program were more internally controlled, as measured by a modification of the I-E Scale, than those who did not complete the program.

Four basic differences exist between the results of the Taylor and Boss study and the research of Newsom and Foxworth (1980): sample size, program duration and content, student sponsorship and measuring instruments. It is possible that in the Newsom and Foxworth study, completion was a function of outside influences such as monetary allowances for attendance at school.

Newsom and Foxworth (1979) also suggest the use of a different instrument than the Rotter I-E Scale in studying the ABE population. They state that "before continued use with this population the Rotter I-E Scale needs revision to increase test reliability" (Newsom & Foxworth, 1979 p. 11).

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It therefore seemed desirable to further examine the locus of control construct and program completion in an ABE full time population, such as the Basic Training for Skill Development (BSTD) program, using Levenson's Internal, Powerful Others and Chance Scales (IPC). The IPC Scales measure two dimensions of externality, as opposed to the one dimension of externality in the Rotter I-E Scale.

Stated in general terms, the main hypothesis of this study is as follows: Those adult learners who complete a BTSD program are more internally controlled than those adults who do not complete the program.

METHODOLOGY

Research Setting

The research subjects were adults enrolled in the Basic Training for Skill Development (BTSD) program of an Adult Basic Education Department in a community college in Eastern Ontario. All of the ABE programs are designed to allow adults to engage in further skill training through the college or to directly enter the labour market.

The BTSD program offers the subjects of mathematics, communication and science for grade equivalencies of five to twelve. The principal orientation of the program is occupational. These fundamental subjects lead to the acquisition of communication and computational skills, as well as the rudiments of science and their application in the job community. Emphasis is placed on practical reading and writing, and oral communication. Mathematical skills ranging from addition and subtraction to linear equations are taught at the different levels. All three subject areas are

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occupationally oriented.

Research Sample

English speaking adults over 18 years of age comprised the sample. It included all 108 learners who began the BTSD program from the third week in September until the third week in December. Because of the curriculum review procedures the majority of the learners began at an instruction Level 2 (grades 5-8). Before entrance into the college program the federally sponsored learners were selected by their CMC counsellors according to job goals. Approximately one-half of the subjects were federally sponsored and one-half were fee-payers.

Measuring Instruments Used in the Data Collection

The instruments administered for the fall data collection were: (a) a modification of the IPC Scales, (b) the Gates-MacGinitie Reading Test, (c) the Morrison-McCall Spelling Scale and (d) a Biographical Profile constructed for the study. The MIPC Scales can be read by an adult learner with grade five reading skills.

The MIPC was administered to each new weekly group of ABE students over a period of three months. The literature suggests that approximately 75% of trainees who drop out or discontinue such programs do so during the first three months (Canada, Department of Citizenship and Immigration, 1966; Forsyth & Mininger, 1966; Kelley, 1968; Taylor & Boss, 1982). For the one way analyses of variance the dependent variable completion was

dichotomized into completers (learners who remained in the BTSD program for 13 weeks) and non-completers (learners who left the BTSD program for any reason during the first thirteen weeks). It was argued that learners who completed 13 weeks of the program had shown themselves to be personally committed (Taylor & Boss, 1982).

ANALYSIS OF THE DATA

The data for this study were collected during the fall of 1983 and the spring of 1984. All instruments were administered during the first week of each continuous intake group (September 19 - December 19). Observations for completers and non-completers were made from September 19th. through to March 23rd.

Completers and Non-Completers

Sixty-five percent of the population remained in the program for at least thirteen weeks, while thirty-five percent of the learners dropped out of the program. Seventy-nine percent of the non-completers (28% of total) dropped out during the first thirteen weeks of the program. Complete results are presented in Table 1.

Out of the thirty learners who dropped out during the thirteen weeks, twelve dropped out during the first four weeks, six in the following four weeks and twelve during the final five weeks (Figure 1).

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The major reason given for not completing the program was inexcused absenteeism from classes (47%). When a student was frequently absent, the faculty advisor attempted to academically counsel the individual. If the absenteeism continued, a series of warnings were issued and if these warnings did not have the desired effect it was recommended that the learner be discontinued from the program. There may have been additional reasons which caused the absenteeism from classes but because of the present clerical procedures of the ABE Department, those reasons were not recorded. Eighteen percent cited medical reasons for not completing. Eleven percent of the learners who dropped out found the course unsuitable to their present academic needs.

Other reasons for dropping out included lack of progress, family responsibilities, personal problems, finding employment and financial difficulties; together these other reasons accounted for twenty-four percent of the dropouts. Complete results are presented in Table 2.

One-Way Analysis of Variance

A one-way analysis of variance was used to test the hypothesis that there is a significant difference between completers and non-completers on the internal dimension of locus of control and that completers score higher on the internal dimension. A one-tailed test of significance was used. Results are presented in Table 3. The analysis yielded an F ratio of 1.67, which is not significant at .05 level. No statistically significant difference in means was found between completers and non-completers on internal locus of control. As well no significant relationship was

found between completion and powerful others, chance dimensions and reading abilities.

A subsidiary hypothesis was tested to explore the possibility that prior education was related to completion. A one-way analysis of variance yielded an F ratio of 5.08 which is significant at the .03 level. A significant difference was found between completers and non-completers in prior education and that completers have obtained a higher grade of prior education.

Three-way ANOVA's were performed on each subscale to investigate the nautre of the locus of control dimensions in an ABE population. It was also found that scores on the MIPC Scales were strongly influenced by the combination of sex and age, and sex and marital status and in the case of the MP and MC subscales, by these factors acting individually.

An examination of the item statistics does question whether or not Levenson's Powerful Others and Chance dimensions are separate entities.

DISCUSSION

Effectiveness of Completing as a Dependent Variable

The literature on adult basic education attrition strongly suggests that approximately seventy-five percent of participants who drop out of programs do so during the first three months. The present study supported this view, with approximately eighty percent of the dropouts leaving the

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BTSD program within the first thirteen weeks. Although the criterion of thirteen weeks is widely accepted and used as a measure of completion in adult educational research, this study raises questions about the usefulness of dropout rate as a critical dependent variable.

A series of interviews with faculty members of the BTSD program was conducted to further investigate other possible variables that may be related to learner completion in an attempt to redefine the independent variables for further research. Two categories of variables were discussed. Under the category of "personal factors", the following variables were suggested as having some relationship to whether or not a learner completes his/her program: inappropriate goals upon entering the retraining program, breakdown in motivation, work habits and supportiveness of peers and family. Under the category of "institutional factors", teacher effectiveness, mode of instruction and departmental policies on attendance were cited as possible variables related to completion.

Additional interviews were also conducted with learners who were continuing in the BTSD program. Similar factors were also reported. Common to all learner interviews were the following: personality type of the teacher, well defined learner goals, degree of learner motivation and peer support. These variables may help explain why forty-seven percent of the population who did not complete the program were discontinued by administration due to absenteeism.

It seems evident that there are many personal and institutional factors that may determine a student's leaving or terminating a BTSD

program. If completion is to be used in similar studies in the future, it may be more advantageous to define the actual program work completed by a learner as the dependent variable. In other words, the term completion may take on the broader definition of success. The degree of persistence in a program and the degree of success in obtaining individual goals through completed work are two different variables. A learner's success could be examined by observing the number of modules or units of work successfully completed and the marks obtained over the length of time remaining in the program.

Altman and Arambasich (1982, p. 100) hypothesized that internality is associated with higher academic aspirations. Alghough other research findings seem to support the contention that the concept of internality is related to academic achievement, results are at times inconsistent and additional investigations are needed (Phares, 1976). Viewing academic achievement as the number of modules successfully completed may be a better way of defining the dependent variable.

Effectiveness of the MIPC Scales as a Measure of Locus of Control

Another factor that may have contributed to a lack of relationship between completion and the locus of control dimensions is that the MIPC Scales may not be an effective method of measuring the construct locus of control.

As discussed earlier the I-E Scale was developed by Rotter (1966) to assess generalized expectancies for internal versus external control of

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reinforcement. It is a forced-choice test which consists of 29 items, 6 of which are filler items intended to disguise the purpose of the test.

Levenson (1981) reconceptualized the Rotter I-E Scale and constructed three new scales composed both of items adapted from Rotter's scale and a set of statements written specifically to measure beliefs about the operation of personal control, powerful others and chance or fate. The Scales comprise three eight-item subscales which are presented to the subject as a unified scale of 24 items in Likert format. The method of scaling, conceptualization of the construct and wording of the items have been changed by Levenson. There also appears to be some earlier inconsistencies in developing the response format of the IPC Scales. Conventional Likert scaling techniques were not followed in the early stages of constructior. Although these inconsistencies appear recently to have been corrected, validity claims for the scales may not be supported. The question of construct validation is also raised in her rationale for separating the external scale into powerful others and chance scales.

Despite these limitations and following an extensive search for a locus of control instrument, the IPC Scales were considered the best abailable for the study. Because the scales have not been used with an ABE population, the concept of scale readability was examined. A simplification of the wording in the scales was necessary to allow all learners in grade equivalencies 5-12 to be able to read and understand the 24 items. Although Rotter's basic theoretical position is supported in Levenson's research, what we find, in effect, are two types of modifications of the original locus of control instrument.

The possibility of levenson's scales not being pure may have been transmitted in the modification of the scales for this specific population. The results of the three-way ANOVA in this study indicate that the MIPC Scale responses are strongly influenced by the combination of sex and age, sex and marital status and by these factors acting individually. As well, Altman and Arambasich (1982) have stated that the original Rotter I-E is not free of sex differences and that in fact there may be interaction between sex and locus of control. One may, therefore, question the appropriateness of using the IPC Scales as presently conceptualized for measuring locus of control.

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Table 1

Completers and Non-Completers

Category	Number	Percentage of Total
Learners who completed the program	70	65
Learners who dropped out of the program	38	35
Total	108	100
Learners who dropped out of the program during the first 13 weeks	30	28
Learners who dropped out of the program after 13 weeks	8	7
Total	38	35

Figure 1

Frequency Distribution of Learners Who Dropped Out During the First 13 Weeks

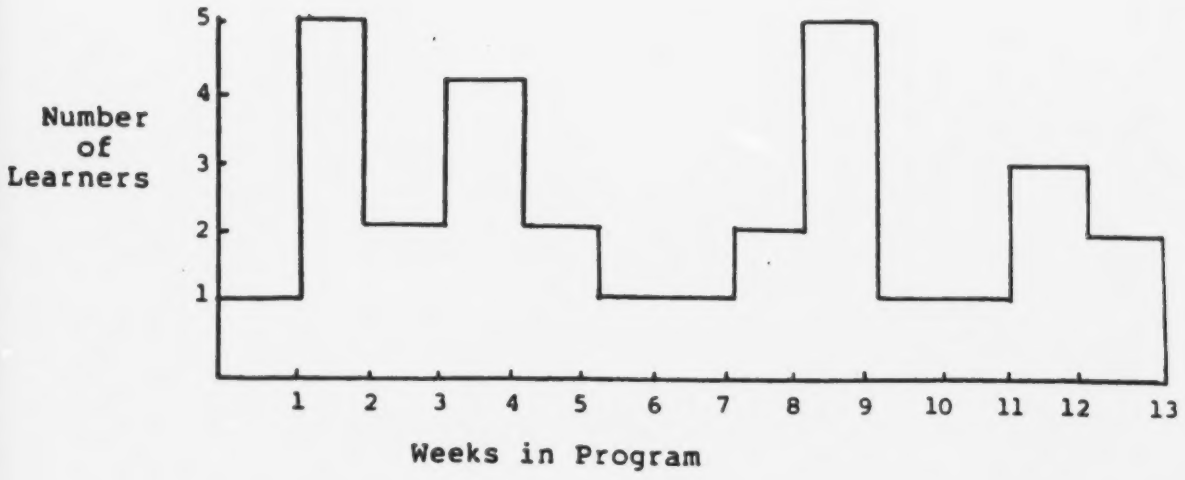

Table 2

Reasons Given for Not Completing the Program

N = 38

Reason	Number of Learners	Percentage of Total Not Completing
Discontinued due to absenteeism	18	47
Medical	7	18
Course Unsuitable	4	11
Lack of Progress	3	8
Family Responsibilities	2	5
Personal Problems	2	5
Found Employment	1	3
Financial Difficulties	1	3
Total	38	100

Table 3

One-Way Analysis of Variance for Completion and Internal Dimension of Locus of Control

N = 107

Table of Means (MI Scores)

	Mean	S.D.
Completers	37.81	5.57
Non-Completers	39.26	4.43

Summary of Analysis of Variance

Source of Variation	Sum of Squares	df	Mean Square	F	p
Between Groups	46.22	1	46.22	1.67	n.s.
Within Groups	2914.42	105	27.76		

n.s. = not significant

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